

Service Parts Ordering Tool  
(**SPOT**)

E-3 Sentry Program  
552nd Air Control Wing  
Tinker AFB

## **1.0 OVERVIEW**

The purpose of this report is to identify and consolidate project information to support project transition from the Headquarters of the Defense Logistics Agency (HQ DLA) to the Air Force's E-3 program office.

### **1.1 BACKGROUND**

Through the Commodity Management System Consolidation (CMSC) program, executed by ManTech Enterprise Integration Center (e-IC), DLA elected to pursue a logistics Research and Development (R&D) effort targeted toward increasing the efficiency of the part ordering process. The weapon system maintainer is specifically targeted through this effort. It is well known throughout the services that a significant amount of manual labor is involved between the identification of a need for a part and the actual placement of an order for that part. Additionally, there are instances where information is relayed or transposed incorrectly in the manual process that further lengthens the time required to generate an order.

Currently, the parts ordering process throughout the services is similar. The maintainer identifies a part requirement based on existing knowledge or by using Technical Manuals (TMs) and/or Interactive Electronic Technical Manuals (IETMs). Once the part number and other supporting information are properly identified, a paper or electronic form is completed by the maintainer and it is provided for entry into the supply system. If the submission is paper, then the information is re-keyed into the supply system, which then processes the order. The order is acquired first through retail stocks, and then through wholesale if the part is not available at the retail level.

The continued infusion of IETMs into the military introduced an opportunity to bridge or automate the current manual process. DLA envisioned a capability that would allow the maintainer to electronically generate an order directly into the supply system from the IETM, thus eliminating the manual steps that currently exist, allowing the maintainer to continue to work undisturbed.

The first step in realizing this vision was to identify service candidates that could participate in a pilot effort to illustrate the concept. The IETMs identified as candidates for this effort were:

- The Marine Corps V-22 Osprey
- The Navy F-18 E/F Super Hornet
- The Air Force E-3 Sentry
- The Army EMS program for the HEMT

DLA concurred with ManTech's final recommendation, the E-3 Sentry program. Prior to fully engaging the program, the AF required a series of briefings to gain product support from the key organizations that would be involved and affected by this effort. Key briefings were given to the following organizations:

- 552nd Air Control Wing (ACW), Tinker Air Force Base (AFB)
- LAK, Oklahoma City Air Logistics Center (OC-ALC), Tinker AFB

- Maxwell AFB, Gunter-Annex, Standard Systems Group (SSG) Installation and Logistics Maintenance-Management (ILM-M) and Integrated Logistics System-Supply (ILS-S), Montgomery, Alabama
- Pentagon Air Staff

Following the required series of briefings, the AF fully endorsed teaming with DLA and ManTech e-IC to achieve the goals set forth in the project Statement of Work (SOW).

## 1.2 Product ROLES and Responsibilities

SPOT is a leave in place *prototype* consisting of both hardware and software. Developed by ManTech e-IC for HQ DLA J-333, the tool automates the parts ordering process for Tinker's 552 ACW radar maintenance technicians.

SPOT software consists of *two interfaces*. First, it links the Integrated Parts Breakdown (IPB) to the SPOT tool and second, it links the tool to the technician's supply system via the Consolidated Automated Maintenance System (CAMS).

DLA HQ J-333 led and directed project actions and contracted with ManTech e-IC for project development, management and technical architecture. Several AF agencies collaborated on the project including the **E-3 Program Office**, which provided both technical input for the IPB interface as well as process analysis for the design phase of the tool. The AF Point of Maintenance (POMX) group within HQ AF/ILMM, supported the supply interface.

Several Tinker AFB support staff offices supported the project:

- DLA Customer Support representatives supported all phases of the project.
- The 552 CAMS DBM provided supply interface technical support and acted as a project champion within the Air Force.
- Tinker's 72<sup>nd</sup> Information Assurance Office provided process input and document staffing support for SPOT's certification and accreditation packet.
- The 552<sup>nd</sup> Technical Order Transformation Office and the ManTech e-IC development team provided system administrator services.

## 2.0 RESULTS

This section defines the term "results" as the time savings provided by the SPOT system. Based on user feedback from the beta test group, the maintenance unit saved 1-2 hours per day or 4 hours per functional area, using SPOT. The tool also identified and corrected two erroneous parts orders. These initial indicators show the vast potential for additional savings with expanded use.

Additional, less tangible results included:

- Reduced repair time
- Increased capability of electronic manuals

## **5.0 SYSTEM EVOLUTION CONSIDERATIONS**

This section will identify opportunities to improve the tool, as well as challenges, in order to allow continued use of the tool by the beta user group. The beta user group should continue to use SPOT to take advantage of the continuity of effort.

**5.1 7R1:** The SPOT CAMS interface currently is designed to integrate with CAMS 6R2 requirements. The release of CAMS 7R1 will require changes to the SPOT/CAMS interface, to comply with the functional modifications resulting from CAMS 7R1.

### **5.2 Work Unit Code**

This function of SPOT would provide the maintainer with the ability to select the work unit code from a list, rather than entering it manually. This function has been implemented, but has not yet been made available to the user. This function can be activated once the users solve the data currency issue.

### **5.3 NSN Look-up**

Manual NSN look-up is cumbersome and time consuming. Integrating the ability for the technician to retrieve an associated stock number for a given part number enhances both the SPOT system and the requisition process and saves time for the maintainer.

### **5.4 Groupings or Shopping Cart**

This feature gives the maintainer the ability to save a list of parts in a grouping for later use in SPOT. For example, a phase dock maintainer may save a list of filters that are changed each time an aircraft goes through a phase inspection. This functionality saves time with decreased process repetition.

### **5.5 Wireless Connection**

The SPOT system, if utilized plane-side, would shorten any maintenance transaction. Currently, the technician troubleshoots a discrepancy and then has to leave the point of maintenance to find a CAMS maintenance terminal to requisition the required replacement parts in order to clear a given discrepancy. Implementing a wireless capability will significantly reduce this processing time.

### **5.6 Knowledge Management**

SPOT is a DLA-based initiative that is projected to go through a series of DLA-controlled iterations and releases with the military services to include the service branches and varying levels of maintenance. It is the intent of DLA for the SPOT program to exist intact as a program. For this reason, DLA intends to manage the source code and other directly modifiable entities related to SPOT. This will support the continued deployment and support of SPOT as a global program within DoD for the purposes set forth by DLA. This is being done to ensure that key components remain intact and are capable of taking upgrades from DLA to enhance capabilities within SPOT, especially as they evolve through this program. Of particular interest to DLA is the ability to expand the knowledge management component of SPOT for DLA and its

customers and the ability to introduce logistic management improvements through SPOT. The KM component of SPOT can only be fully realized after multiple deployments of SPOT to various levels of maintenance and SPOT is working within each partnering service. It should be noted that provisions have been made to support tailoring of SPOT, as required to each service, without directly modifying critical components of SPOT. DLA has taken this posture to prevent the development and promulgation of unique SPOTs throughout DoD. If this were to happen, the ultimate vision of SPOT would not be achievable.